

Title (en)

Method and apparatus for a switch mode power supply that generates a high pulse width modulation gain while maintaining low noise sensitivity

Title (de)

Verfahren und Vorrichtung für einen Schaltnetzteil mit hohem Gewinn und niedriger Rauschempfindlichkeit

Title (fr)

Procédé et dispositif pour une alimentation de puissance à découpage générant un gain élevé de modulation par largeur d'impulsion tout en gardant une faible sensibilité au bruit

Publication

EP 1331721 B1 20120104 (EN)

Application

EP 02257806 A 20021113

Priority

- US 33515801 P 20011113
- US 29336902 A 20021112

Abstract (en)

[origin: US2003090253A1] A power supply with high pulse width modulation gain and low noise sensitivity has been disclosed. In one embodiment, a power supply includes a regulator circuit controlling a power switch. The regulator circuit includes a control input that receives a current, which is the sum of a consumption current of the regulator and a feedback current. The consumption current of the regulator is varied as a function of the duty cycle of the power switch. The feedback current is the current in a shunt regulator, which is control current in excess of the internal consumption of the regulator.

IPC 8 full level

H02M 3/156 (2006.01); **H02M 3/28** (2006.01); **H02M 3/335** (2006.01); **H02M 3/338** (2006.01)

CPC (source: EP US)

H02M 3/1563 (2013.01 - EP US); **H02M 3/33507** (2013.01 - EP US); **H02M 3/338** (2013.01 - EP US); **H02M 1/0006** (2021.05 - EP US)

Designated contracting state (EPC)

DE FR GB IT NL SE

DOCDB simple family (publication)

US 2003090253 A1 20030515; **US 7068022 B2 20060627**; EP 1331721 A2 20030730; EP 1331721 A3 20050615; EP 1331721 B1 20120104; EP 2339733 A2 20110629; EP 2339733 A3 20110727; JP 2003158872 A 20030530; JP 2009136148 A 20090618; JP 4723791 B2 20110713; JP 4972112 B2 20120711; US 2006176039 A1 20060810; US 2007159152 A1 20070712; US 7205754 B2 20070417; US 7369418 B2 20080506

DOCDB simple family (application)

US 29336902 A 20021112; EP 02257806 A 20021113; EP 11163019 A 20021113; JP 2002329899 A 20021113; JP 2009062913 A 20090316; US 39742606 A 20060403; US 71445807 A 20070305